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GENERAL STUDIES (TEST CODE : 1417)

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Medium Hindi/Eng.	ENGLISH	Registration Number	553357
Center	My home sweet home	Date	01-12-20

INDEX TABLE

Q. No.	Maximum Marks	Marks Obtained
1	10	
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Total Marks Obtained:

Remarks:

Signature of Examiner

INSTRUCTIONS

1. Do furnish the appropriate details in the answer sheet (viz. Name, Registration Number and Test Code).
   उत्तर पुस्तिका में सूचनाएं भरना आवश्यक है (नाम, प्रश्न-पत्र कोड, विद्यार्थी क्रमांक आदि)।
2. There are **TWENTY** questions printed in **ENGLISH & HINDI**
   इसमें बीस प्रश्न हैं अंग्रेजी और हिन्दी में छपे हैं।
3. **All questions are compulsory.**
   सभी प्रश्न अनिवार्य हैं।
4. The number of marks carried by a question/part is indicated against it.
   प्रत्येक प्रश्न/भाग के अंक उसके सामने दिए गए हैं।
5. Answers must be written in the medium authorized in the Admission Certificate, which must be stated clearly on the cover of this Question-Cum-Answer (QCA) Booklet in the space provided. No marks will be given for answers written in medium other that the authorized one.
   प्रश्नों के उत्तर उसी माध्यम में लिखे जाने चाहिए जिसका उल्लेख आपके प्रवेश पत्र में किया गया है और उस माध्यम का स्पष्ट उल्लेख प्रश्न–सह–उत्तर (क्यूसीए) पुस्तिका के मुख्य पृष्ठ पर अंकित निर्दिष्ट स्थान पर किया जाना चाहिए। उल्लिखित माध्यम के अतिरिक्त अन्य किसी माध्यम में लिए गए उत्तर पर कोई अंक नहीं मिलेंगे।
6. Word limit in questions, if specified, should be adhered to.
   प्रश्नों मे शब्द सीमा, जहाँ विनिर्दिष्ट है, का अनुसरण किया जाना चाहिए।
7. Any page or portion of the page left blank in the Question-Cum-Answer Booklet must be clearly struck off.
   उत्तर पुस्तिका में खाली छोड़ा हुआ पृष्ठ या उसके अंश को स्पष्ट रूप से काटा जाना चाहिए।

EVALUATION INDICATORS

1. Contextual Competence
2. Content Competence
3. Language Competence
4. Introduction Competence
5. Structure - Presentation Competence
6. Conclusion Competence

Overall Macro Comments / feedback / suggestions on Answer Booklet:

1.

2.

3.

4.

5.

6.

All the Best

1. Dadabhai Naoroji left an indelible imprint on the national movement. Explain. (150 words) 10
दादाभाई नौरोजी ने राष्ट्रीय आंदोलन पर एक अमिट छाप छोड़ी। स्पष्ट कीजिए।

Dadabhai Naroji was a father figure in India's national movement and was key to formulation of ideological base for freedom struggle through his advocacy and leadership.

Contribution

- Formation of East India Association
Shaping the opinion of European masses and leaders was as important as shaping Indian opinion and Dadabhai Naroji used EIA to lobby for Indian interests in London.

- As an ideological leader
Took the economic drain theory to wider audience and exposed the

opressive nature of British occupants.

He established that British were here for their own mercantile benifit and not for benifit of Indians.

- As leader of Indian National Congress

↳ he was a unifying force within the Congress and his leadership was the reason INC did not split in 1905 - 06.

↳ Groomed many leaders for the freedom struggle.

- As an entrepreneur

was one of the earliest who understood the importance of industry and local capital and formed base for Indian industry to grow.

Thus he played an important role and charted the Indian national movement in its initial organised phase.

2. The Quit India movement marked a new direction in the struggle against the British colonial rule in India. Analyse. **(150 words) 10**
भारत छोड़ो आंदोलन ने भारत में ब्रिटिश औपनिवेशिक शासन के विरूद्ध संघर्ष में एक नई दिशा को चिन्हित किया। विश्लेषण कीजिए।

Quit India movement shook the very foundation of British colonialism and established the fact that Indians will not settle for anything short of independence.

QIM as paradigm shift

- Resistance from the very tool of British occupation i.e. the armed forces, bureaucracy and police.

British could no longer trust the Indians manning their administration without whom occupation of India was impossible.

eg. → Refusal by army to fire at protesters in Peshawar.

⇒ Revolt of Naval Ratings in Bombay.

- Indian mass internalized Gandhi's slogan of "Do or Die"

Indian public was ready for any sacrifice in order to achieve independence

eg → Underground movements
→ outright rejection of British authority
→ setting up of local government

the fear of British machinery had died down and mass was ready to bear repurcussions.

- Organic movement

despite INC leadership being detained the movement ran its course and there was seamless coordination. Also there was almost complete participation of Indians.

Thus QIM made it untenable for British to hold power in India any longer and paved way for independence.

3. The end of World War II marked the birth of a new international order. Examine. **(150 words) 10**
द्वितीय विश्व युद्ध के अंत ने एक नई अंतर्राष्ट्रीय व्यवस्था को जन्म दिया। परीक्षण कीजिए।

Culmination of World War II led to a new dawn in global order which was bipolar, more rule based and humane.

New international order

- Bipolarity by the way of dominance of USA and USSR.
  The leadership and clout of western European powers had declined and there were two rival camps i.e. NATO & Warsaw Pact.
- Decolonialization - WW2 marked an end of victorian style imperialism and a new market structure was created based on multilateral organizations

- Emergence of rules based order

Formation of United Nations and in particular UNSC marked a paradigm shift in way global affairs and conflicts were to be handled.

↳ imp. of human rights → Universal Declaration on Human Rights and its covenants

↳ security structure and apparatus → UNSC and peacekeeping forces

- space for other sovereign countries albeit limited.

↳ formation of NAM

↳ Regional institutions like African Union, SAARC, etc.

Thus a markedly different world order emerged post WW2 which is dynamic in nature but has largely sustained.

4. The Simla Agreement (1972) and Lahore Declaration (1999) are two key milestones in the history of the Indian subcontinent. Discuss.

(150 words) 10

शिमला समझौता (1972) और लाहौर घोषणा-पत्र (1999) भारतीय उपमहाद्वीप के इतिहास में दो महत्वपूर्ण उपलब्धियां हैं। चर्चा कीजिए।

Simla Agreement and Lahore Declaration are the two defining documents w.r.t India - Pakistan Bilateral relations and are also milestones in the sense that both are treaty like documents.

Simla Agreement (1972)

Post 1971 Indo-Pak war where Bangladesh was liberated.

Milestone character

- India and Pakistan will sort out their differences bilaterally without any foreign or UN intervention.
- LOC to be maintained as ceasfire line and defacto International boundary.

Thus Simla agreement has been the key document which has guided much of

geopolitics in South East Asia.

Also UN and other major powers have recognized Simla agreement and it acts as bulwark against internationalization of Kashmir issue.

Similarly Lahore Declaration came after historic visit of Indian PM to Pakistan.

Outset → nuclear weapon capability development by both countries

Key terms → responsible ownership of nuclear arsenal and explore way towards non proliferation
→ adherance to UN charter

But Pakistan has time and again violated the terms and spirit of both of these,

- Intrusion into Kargil sector
- repeated attempts of internationalizing Kashmir issue and waging proxy war.

5. Social security should not only involve economic empowerment but also social empowerment. Discuss in the context of India. **(150 words) 10**
सामाजिक सुरक्षा में न केवल आर्थिक सशक्तीकरण अपितु सामाजिक सशक्तीकरण भी सम्मिलित होना चाहिए। भारत के संदर्भ में चर्चा कीजिए।

The goal is human development which comprises of not only economic but also social and political empowerment.

Reasons of social insecurity are found in social reasons and hence social empowerment is equally important.

↳ Poor condition of women
- 66% literacy as against 82% in men
- more than 40% women are anaemic ⇓
- only form 1/5 of India's labour force and also earn 1/5 of male counterpart

↳ Social discrimination causing relative deprivation by exclusion, etc.

- Caste based & religion based social deprivation due to lower education and health levels and hence poorer human development.

eg Only 40% tribals literate & tribals more prone to TB, etc.

Thus social empowerment is also necessary apart from economic empowerment to rescue deprived people from vicious cycle of poverty and underdevelopment.

Imperatives ⟹ achievement of social equality

- Better education and literacy levels
- Skilling and vocational education

⟹ Participation in economic activity.

- improving health indicators through various interventions like Ayushman Bharat and National Nutrition Mission.
- Removing discriminatory practices through better implementation of laws

All this will lead to equity in capturing of opportunities by all sections of society thus leading to social security in terms health security, income security, security after retirement and for children.

6. Explain with examples how globalisation is manifested in both local in the global and the global in the local. (150 words) 10
उदाहरण देते हुए स्पष्ट कीजिए कि वैश्वीकरण वैश्विक में स्थानीय और स्थानीय में वैश्विक, दोनों में किस प्रकार प्रकट होता है।

Globalization has been a two way street where there are interactions between different societies leading to change in practices and evolution of society.

There is no one global practice or one common global culture and even MNC's have different cultures in different societies.

Local in Global

When there is interaction and entry of outside influence in local then that influence itself undergoes change thus giving rise to GLOCALIZATION.

eg Paneer Tikka Pizza → Italian with Indian delicacy touch

Fusion music culture → Raps with desi beats

Hinglish as a language → Hindi + English (can be actually set on mobiles for use)

Global in the local

There are certain global practices which seep into local culture due to liberalization of society.

- Live in relationships
- English as a key mode of communication in official matters, etc.
- entry of foreign products in markets
- Corporate culture in Indian businesses.

Thus globalization is an interesting social phenomenon which has made society more dynamic and more amenable to change and evolve.

7. In light of persistence of various forms of violence against women in India, discuss the ways in which the issue can be addressed effectively.
(150 words) 10

भारत में महिलाओं के विरूद्ध हिंसा के विभिन्न रूपों की विद्यमानता के आलोक में, उन उपायों की विवेचना कीजिए जिनसे इस मुद्दे का प्रभावी ढंग से समाधान किया जा सकता है।

Patriarchy is ingrained in Indian culture which has manifested into various forms of violence against women and at different social setups.

Forms of violence

- Domestic violence — wife beating, abuse, mental harassment for dowry, etc.
- Violence in public — crime against women like rapes, molestation, outraging modesty, etc.
- Workplace violence — harrassment and discrimination
- Indirect violence in form of neglect and discrimination
  - no toilet for girls in schools
  - inadequate facilities for women in public spaces like toilets, creches, etc
  - feticide, infanticide & son meta preference

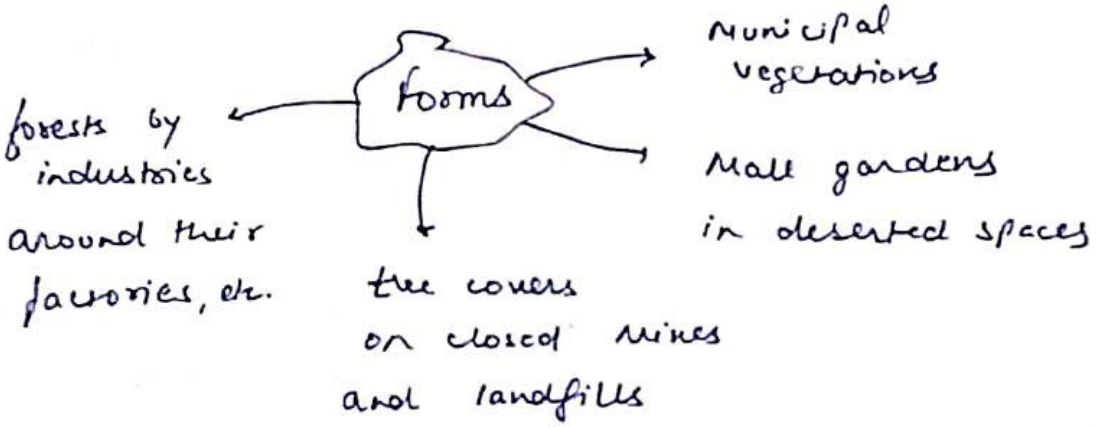
How to address this issue

- Value education is the first step as when child witnesses violence against women he internalizes that culture.
- Creating conducive environment for women to freely express themselves without targeting, victim shaming, etc.
  - ↳ training of public officials & women in service
  - ↳ social media policies
  - ↳ public safety and security
- Strong legislations and their proper implementation
  - ↳ Domestic violence Act, Vishakha guidelines, Women Police stations and staff, etc.

Human development is impossible without 50% of population being subjected to violence and discrimination & hence comprehensive women empowerment in line with Beijing Declaration is imperative.

8. What is an urban forest? Highlight its benefits and steps taken by the government to promote urban forestry in India. **(150 words) 10**
शहरी वन क्या हैं? इनके लाभों और भारत में शहरी वानिकी को बढ़ावा देने के लिए सरकार द्वारा उठाए गए कदमों पर प्रकाश डालिए।

Urban forests are vegetation in an urban space often in form of dense tree covers albeit small in scale.



eg In Bhilai there are several such urban forests which were planted by SAIL so as to offset some effects of Bhilai Steel Plant & make Bhilai more liveable. The temperature of Bhilai as a result is a degree lower than Durg and 2°C less than Raipur.

Benifits

- Increases tree cover — less pollution, cooler temperatures, better biodiversity.
- Ambient benifits to city's morphology. which also psychologically affects residents positively.
- Benifits against hazards — buffer against urban floods, saves from heat waves

Steps taken to promote Urban forestry

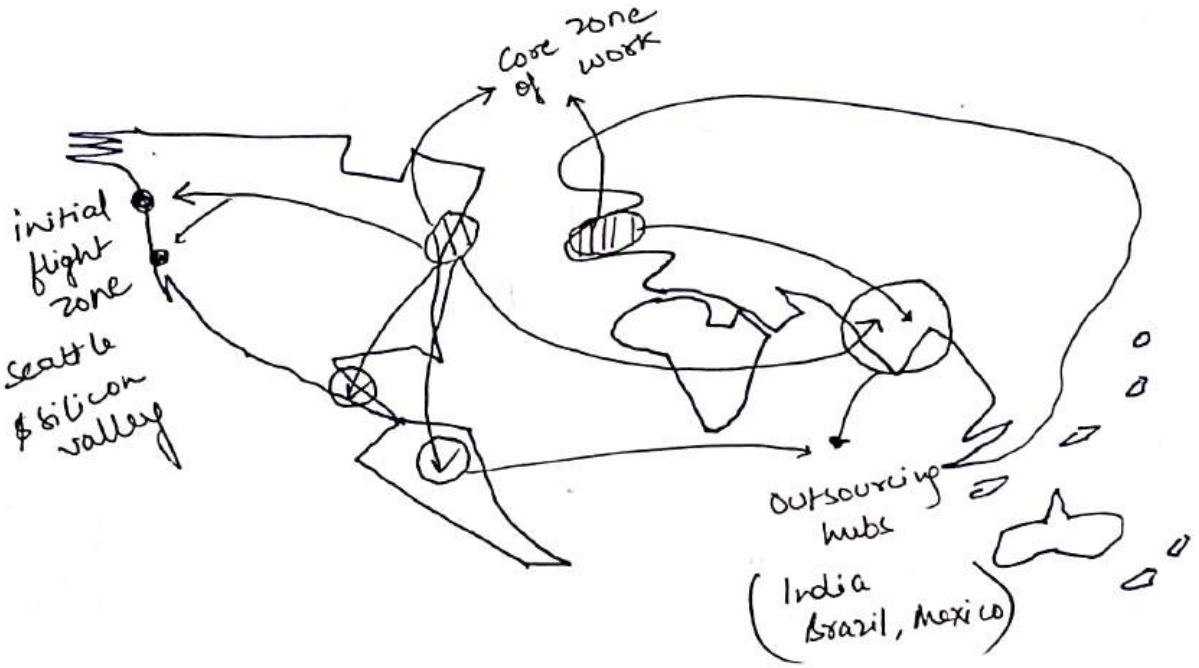
- Model land use zoning and Planning designates urban forest zones of Delhi ridge forest as sacrosant area.
- Building codes and township Planning permissions need certain area for tree cover.
- Green corridors on roads and highways.

Urban forests are important bulwarks against Urban Heat Island effect which has been validated through several case studies of Bangluru, Shilai, etc.

9. How has globalization impacted the location of the IT industry? (150 words) 10

वैश्वीकरण ने IT उद्योग की अवस्थिति को किस प्रकार प्रभावित किया है?

Globalization has played a key role in delocalization of IT industry through outsourcing and freedom of movement of people across borders.



Effect of Globalization

With liberalization and opening up of borders for business the industry reoriented in order to cut costs and be more competitive, and thus the delocalization of IT industry. through BPO and otherwise.

Movement towards India

- highly skilled labour pool at cheaper rates
- infra devt. through govt. schemes like Software Tech. Parks, etc and foreign investment eg Microsoft, Google, etc.
- India using English was key reason why IT flew to India and not to China

Since India has already created a IT Super hub in Bangalore and Hyderabad and also strong companies like Wipro, TCS, Infosys, etc. it has become a growth center.

- agglomeration of auxillary industry
- Universities providing IT education & skilling.

Now with opening of borders for people's movement and schemes like H-1b, etc., even people are free to move and thus there is attempt to bring back much of industry back to core zones of US & Europe.

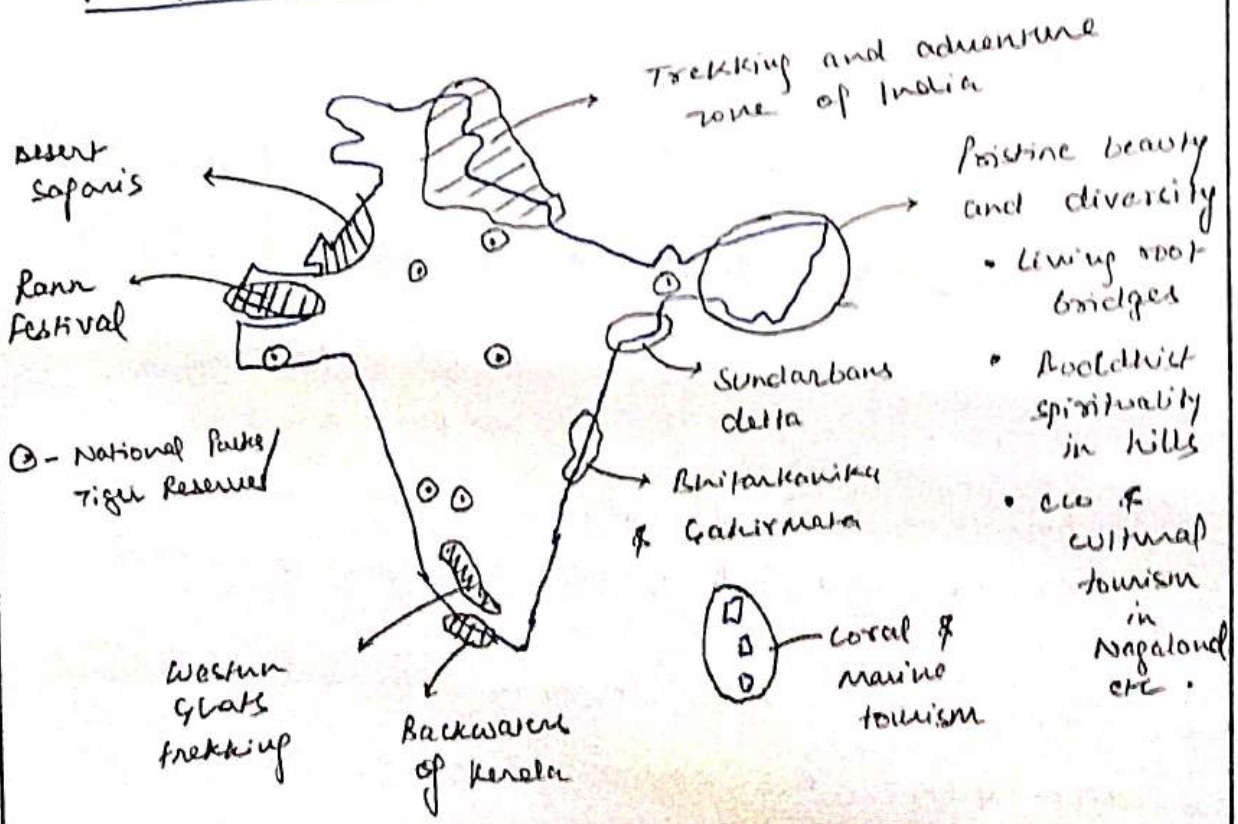
10. How can eco-tourism be used to sustainably harness the potential of tourism industry in India? Discuss the challenges and steps taken by the government in this context. **(150 words) 10**

भारत में पर्यटन उद्योग की क्षमता का संधारणीय रूप से दोहन करने हेतु पारिस्थितिकीय पर्यटन का कैसे उपयोग किया जा सकता है? इससे जुड़ी चुनौतियों और इस संदर्भ में सरकार द्वारा उठाए गए कदमों की विवेचना कीजिए।

Eco-tourism has emerged as the key model for development of tourism industry in a sustainable manner.

Components of Eco-Tourism
- Wild life tourism
- Reef and Marine tourism
- Adventure Tourism
- Spiritual Tourism in hills.

Scope in India



Challenges

- Lack of human resource pool — guides, operators, etc
- Infrastructure and connectivity — lack of facilities like homestays, etc; hill regions of India have poor connectivity
- Behavioral problems with tourists who litter & pollute
- Sustainibility and local control is needed so that tourism is within capacity
  eg Ruin of Ganges flood plains due to camping.

Strategy & Govt. efforts

- Infrastructure & connectivity
  - Extension of rail to North East & Kashmir
  - Major highways & roads being constructed
  - opening of resorts & homestays
  - tourism university to create HR
- Cluster Approach & its marketing
  - ↳ clubbing of similar zones for marketing and outreach eg ad campaigns
    Rajasthan → "yeh nahi dekha toh kya dekha"
    Gujarat → "Kuch din toh guzaro Gujrat mein"

To stop outmigration and increase income levels without degradation, eco tourism can be an effective strategy.

11. The advent of Buddhism and Jainism was instrumental in the development of architecture in ancient India. Discuss. **(250 words) 15**
प्राचीन भारत में स्थापत्य कला के विकास में बौद्ध धर्म और जैन धर्म का उद्भव सहायक रहा। चर्चा कीजिए।

Buddhism and Jainism emerged as reformist religions in ancient India and have had very rich architectural heritage.

Importance of Buddhist & Jain Architecture

- Emergence of rich cave architecture in form of viharas, chaityas, etc.
  - ↳ used as prayer halls and dwelling places

  eg Ajanta caves, Bagh caves, Barabar hill complex, multiple Chaityas and Viharas in Amravati, etc.

- Development of Stupas which are found all across major civilizational spaces around India.
  - ↳ introduction of Toranas, boundary walls, domal shaped

roofs, circumambulatory path, etc.

- Building of temples and universities

Nalanda university and Mahabodhi temple in Bihar reflect mature architectural knowledge.

Also Jain Temples in Dilwara, Mount Abu and other hill tops indicate good knowledge of architechture.

In a way Buddhist and Jain architecture were pioneers which was later followed by architectural development during Gupta period when we first see development of Hindu Temples in a major way.

things that stand out in Buddhist & Jain architecture,

- Resistance and durability of structure owing to use of stones as building material, because earlier wood was used as chief building material which was not durable.
- Grandness of public architecture sheer size and magnificence of architecture inspired architecture in later periods.

Buddhist & Jains had patronage amongst kings & masses and also contributed richly to development of not just architecture but also society, art, literature and kingdoms.

12. The reactionary policies of Lord Lytton and the liberal policies of his successor Lord Rippon acted as catalyst in the formation of the Indian National Congress. Discuss. **(250 words) 15**

लॉर्ड लिटन की प्रतिक्रियावादी नीतियों और उसके उत्तराधिकारी लॉर्ड रिपन की उदार नीतियों ने भारतीय राष्ट्रीय कांग्रेस के गठन में उत्प्रेरक का कार्य किया। चर्चा कीजिए।

Governor Generals had wide powers and the colonial rule was very much shaped by their personal beliefs, for some were hardcore imperialists whilist some were very liberal in their approach.

Lord Lytton's regime

With Indians gaining political space through councils and media, political activity started to happen much to the displeasure of Lord Lytton.

He employed reactionary policies to end all political activity,

- Introduction of vernacular Press Act, 1978 which was aimed at press, a key facilitator of mass engagement.

- lowering the age of entry into civil services aimed at keeping Indians out of ICS.
- Other reactionary policies like dilution of civil rights, extensive use of CID, etc

As a result of these policies Indians turned more hostile towards the British and political and national conciousness was raised significantly, which made making a national political organization all the more important to channelize this mass anger.

Lord Ripon's regime

The British could feel the ground smell against them and deployed certain liberal policies to placate Indian political opinion.

- Repeal of Vernacular Press Act and easing restrictions on press and civil rights.
- Decentralisation of administration and finances to certain level.

Thus by 1885 political activity had reached a certain level where a pan-India national organization could be formed.

Finally INC was formed with W.C. Banerjee as its 1st President and held its session in Bombay further catalyzing the national movement.

13. Gandhiji changed his methods of struggle against the British from time-to-time to suit the varied circumstances and problems that needed to be tackled. Analyse. **(250 words) 15**

गांधी जी ने विभिन्न परिस्थितियों और समस्याओं जिनसे निपटने की आवश्यकता थी, के अनुकूल समय-समय पर अंग्रेजों के विरूद्ध संघर्ष की अपनी विधियों में परिवर्तन किया। विश्लेषण कीजिए।

Gandhiji had immense belief in power of the masses and also had the organizational and political acument to channelize it to achieve desired goal.

Political acumen

- Understanding the desire of common masses and underlying contradictions.
- organizing and preparing masses for struggle.
- communication and connect with masses through slogans and symbolism.

eg Do or Die, choice of salt

This he gained from his India tour in 1915-16 which shaped much of his understanding of India.

Struggle in initial Phase

Small and local struggles to test masses if they are ready for the battle.

↳ Champaran Satyagraha
usage of civil disobidience by refusal to pay rents and undue demands to which British largely relented.

↳ Ahemdabad Mill Strike
usage of hunger strike → persuasion of mill owners
→ motivating the workers

↳ Rowlatt Satyagraha
mass strike and usage of religious symbols like kirtan, etc. to bind the masses.

Mass Phase

Non cooperation movement – putting to full use the organization, the press to create a mass movement.

Agitation against British through protest marches, picketing, boycotts, etc.

Passive Phase

The struggle changed markedly during Passive Phases and was aimed internally rather than at British.

eg constructive work, organisational changes, movement against untouchability, etc.

Quit India Movement

Slogan of "Do or Die" to fully unleash the masses as problem was fully exposed and circumstances were ripe for one final push.

But in applying methods Gandhiji never compromised with his core ideology of non violence and satyagraha.

14. Bring out the relationship between the industrial revolution and the advent of imperialism in different parts of the world. **(250 words) 15**
औद्योगिक क्रांति और विश्व के विभिन्न भागों में साम्राज्यवाद के आरंभ के मध्य संबंधों को स्पष्ट कीजिए।

Imperialism and Industrial Revolution are intricately linked. The very requirement of IR i.e. quest for resources and markets unbashed imperialism.

Industrial Revolution and changed circumstances

↳ Quest for resources — minerals, cash crops, labour

↳ Markets for selling the mass output being generated as local market was limited and had too much competition.

↳ Outlet for excess capital being generated

These requirements apart from missionary zeal and territorial hunger gave rise to unprecedented zeal for imperialism.

Resource Regions of Imperialism

- Mineral wealth of Africa, Latin America, America and South East Asia.
  - Iron ore, coal, copper, tin, etc
- Requirement of raw materials for textile industry and sugar industry
  - ↳ cotton and jute from South Asia and Indigo
  - ↳ Sugarcane from Latin America
- Labour requirement to man plantations and for domestic help.
  - ↳ Slaves from Africa to New England, Latin America and Europe
  - ↳ Indentured labour from India, etc to South Africa, Caribean, etc.

Market & Capital outlet

- Huge uncaptured markets of China, India, Africa, etc to sell the industrial output and keep the cycle running.

of Textile sale in India, etc. replaced India's traditional clothing.

- Profitable investments into colonies in form of industries, railways, dams, etc.

Relationship to Imperialism

- In order to harness resources and change local economic pratices complete political control was required.
  - → Reducing resource cost through use of force → slavery, indigo cultivation
  - → capturing market and killing local industry → trade policy, control over capital and credit

Thus without imperialism the real engine of Industrial Revolution would have stopped and thus the need for imperialism.

15. The caste system in India has continued to persist by adapting itself to a variety of changing socio-economic and political conditions in the past few decades. Discuss. **(250 words) 15**

भारत में जाति व्यवस्था विगत कुछ दशकों में परिवर्तित होती विभिन्न सामाजिक-आर्थिक और राजनीतिक स्थितियों के अनुरूप अपने आपको ढालकर विद्यमान है। चर्चा कीजिए।

Caste system in India has been very dynamic since the ancient times and even its very inception was rooted in socio-economic realities of the time.

Ancient times - Relationship with Varna system

Caste system was organized as a system of division of labour to avoid competition, duplication and to ensure complementarity.

However, it got corrupted with time into an opressive hierarchial system for consolidation of political power of few.

Colonial Age

There was a massive realignment due to British policies
- → caste based census
- → land ownership rights and mated policy
- → concept of martial races.

For census purposes each caste group tried to present itself as superior through different evidences and lineal tracing.

↳ This consolidated the caste groups into homogenous identities.

↳ created a rift between different caste groups.

Other important developments
- → Emergence of certain dominant landed caste groups likes Jats, Yadavs, etc
- → Protection system for marginalized groups like dalits and adivasis.

Emergence of caste based mobilization

Different caste groups started to mobilize based on their caste identities and common grievances

eg Dalit Mobilization
- Dalit Panther group
- Mahar sabha
- All India SC Federation
- Republican Party.

Caste system in modern India

Urban India

Since there is little socialization in an urban setup and hence caste identities seldom matter thus caste assertion is not very public.

Rest of India

Politicization of caste → caste based political parties and mobilization

↳ caste based parties have been successful in transferring their votes in alliances and hence strengthening of this phenomenon.

Assertion of caste, in many areas and for many groups often caste is the only identity they have due to poor socio-economic conditions and hence they proudly wear it.

Govt. policy and legislation → Affirmative action (reservation)

→ prevention of Atrocities Act, etc.

This state protection and recognition has also strengthened the caste group identity and often their is movement for more benifits and inclusion.

Thus caste system has adapted to social changes.

16. It is argued by some that regionalism is a threat to national integrity while others consider it as a highly impactful tool in facilitating political participation. Discuss. **(250 words) 15**

कुछ लोगों द्वारा यह तर्क दिया जाता है कि क्षेत्रवाद राष्ट्रीय अखंडता के लिए एक खतरा है, जबकि अन्य लोग इसे राजनीतिक सहभागिता को सुगम बनाने में एक अति प्रभावशाली साधन मानते हैं। चर्चा कीजिए।

Regionalism arising from feeling of unique identity or relative deprivation has existed in India and while initially it was seen as a threat but with national Progress Indian polity has internalized it craftfully.

Initial view → threat to national integrity

Since India was a nation in making even at the time of independence its leaders were wary of secessionist tendencies, which was not completely unfounded.

- → Dravida movement and demand of Dravida Nadu.
- → Khalistan movement and terror
- → Several seccessionist movements in North East.
- → Kashmir Insurgency.

Many a times external powers have increased the threat particularly in case of Kashmir & Khalistan.

But as India evolved it learned to give voice and credence to regional grievances within its constitutional framework.

This trend led to increased political participation and strengthening of regional parties and federalism.

Method of engagement

- State Reorganization
  eg forming of Andhra Pradesh and separation of Gujarat.
- Granting statehood and assimilating political leaders
  eg formation of Mizoram, Nagaland etc.
- Giving greater freedom within states
  eg Bodoland territorial council, Ladakh Hill council, etc.

And with deepening of democracy, political participation has increased and threat

to national security due to regionalism is not a prime concern.

Also the Indian state has grown in power and its security apparatus has strengthened significantly.

Existing Faultlines

Though certain faultlines remain often with external support like in demand of Nagalim, separatism in Kashmir, etc but political process and dialouge continue.

Benifits of regional aspirations

- Competitive spirit and competitive federalism
- Zeal to achieve more and deliver best for people
- Preservation and flourishment of local cultures and values
- Nationwide political debate to fulfill regional aspirations.

Thus regionalism has emerged as a tool for facilitating faster development and progress as also of preservation of regional culture.

17. Natural gas has become an important primary energy source and its consumption is projected to increase further. Identify various usages of natural gas and give a brief account of its distribution globally.

(250 words) 15

प्राकृतिक गैस एक महत्वपूर्ण प्राथमिक ऊर्जा स्रोत बन गया है तथा इसके उपभोग में आगे और वृद्धि होने का अनुमान है। प्राकृतिक गैस के विभिन्न उपयोगों की पहचान कीजिए और विश्व स्तर पर इसके वितरण का संक्षिप्त विवरण दीजिए।

Natural Gas has emerged as the key competitor to coal and crude oil and its share in energy mix has been consistently growing over the years.

Why Natural Gas

- Cleaner alternative
- easy & cheap transportation through network of pipelines
- much wider distribution and spread
- cheap extraction & storage very flexible through liquefication

Owing to these factors Natural Gas has emerged as an important primary energy resource.

Further increase in consumption

1) Change in government policies across the world away from more polluting sources

eg. • India's fertilizer manufacturing policy has now shifted to natural gas.
• usage of CNG in transport sector has grown due to its less polluting nature [NCR has led this change]

2) Creation of neccessary infrastructure
LNG terminals, pipeline networks across the world, liquification plants, gas based manufacturing etc.
eg. • Urja Ganga Grid & TAPI (in conception)
• Hazira terminal, etc.

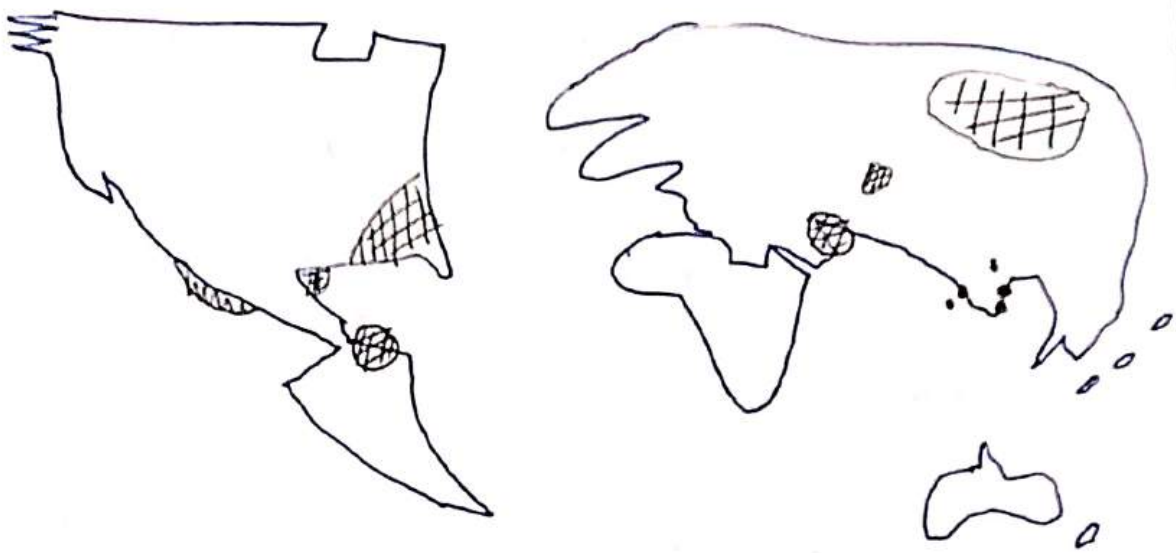
3) Civil society movement against coal use and mining., and other sources like oil due to spills, etc.

Usages of Natural Gas

Natural Gas can be used as a primary fuel in variety of applications,
• Transportation fuel in form of CNG
• Domestic fuel in form of cooking gas

- Industrial fuel in manufacturing process.

Distribution of Natural Gas



- In marine basins across the world including India eg KG basin, etc.
- In permafrost and periglacial regions where forests used to be there in ancient times. eg Siberia, etc.
- In Mexican Gulf region, Venezuela, Coal seams across the world and Arabian peninsula particularly Qatar.

18. Describe the process of rift valley formation, with special emphasis on the Great Rift Valley System. **(250 words) 15**

महान भ्रंश घाटी प्रणाली पर विशेष बल देते हुए, भ्रंश घाटी के निर्माण की प्रक्रिया का वर्णन कीजिए।

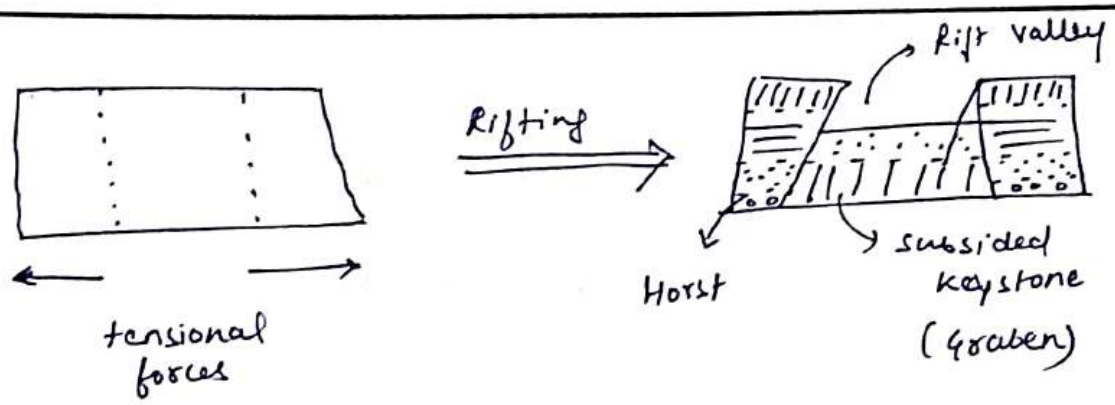
Rift valley is an elongated depression in land caused by endogenetic forces which fracture the land along a plane and causes formation of graben and horst topography.

Formation of Rift valley

There are two hypothesis which explain Process of rifting → Tensional Hypothesis (keystone hypothesis)
→ Compressional Hypothesis.

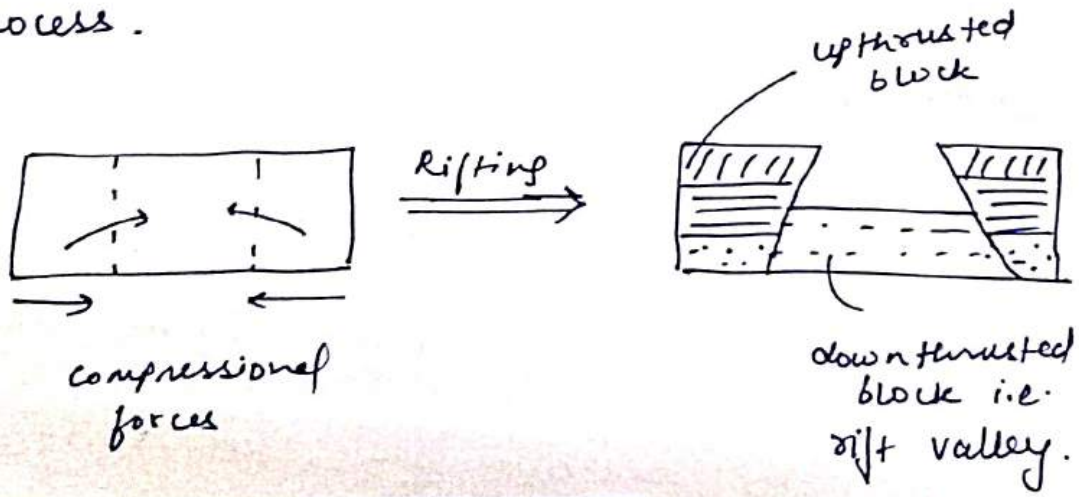
1) <u>Keystone Hypothesis</u>

Rifting is the result of <u>tensional forces</u> acting along a plane causing <u>subsidence of middle block</u> i.e. the key stone.



2) Compressional Hypothesis

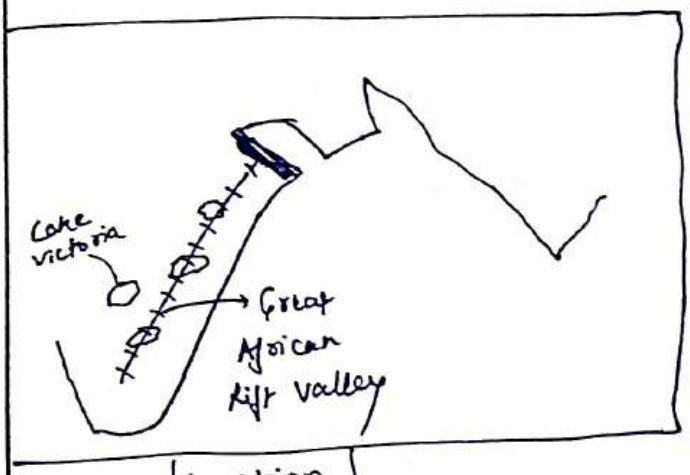
Rifting is a result of compressional forces and blocks are thrust over each other forming a rift valley in process.



Great African Rift Valley

It is one of the longest running Rift valley on the Earth with two active arms and an Aulocogen (dead arm).

It is believed that active margins i.e. the rift valleys coincide with plate boundaries where convective currents act as forces causing rifting to occur.



Location

The key arm runs across N-S in eastern Africa which merges into the arm in Red Sea.

Rifting is a key geomorphic process which gives rise to hills, mountains (blocks) and escarpments and scientists have been trying to decipher it more conclusively.

19. India's water resources have witnessed rapid depletion due to a mix of economic, geographic, and political factors. Explain and discuss its implications. (250 words) 15

भारत के जल संसाधनों में विभिन्न आर्थिक, भौगोलिक और राजनीतिक कारकों के संयोजन के कारण तेजी से ह्रास देखा गया है। स्पष्ट कीजिए एवं इसके निहितार्थों की विवेचना कीजिए।

India has been facing depletion of water resource and per capita availibility has fallen below 1700 cum / person / year indicating "water stress" as per falkenmark index. Also 252 districts in India are officially categorized as under critical water stress condition by CWC.

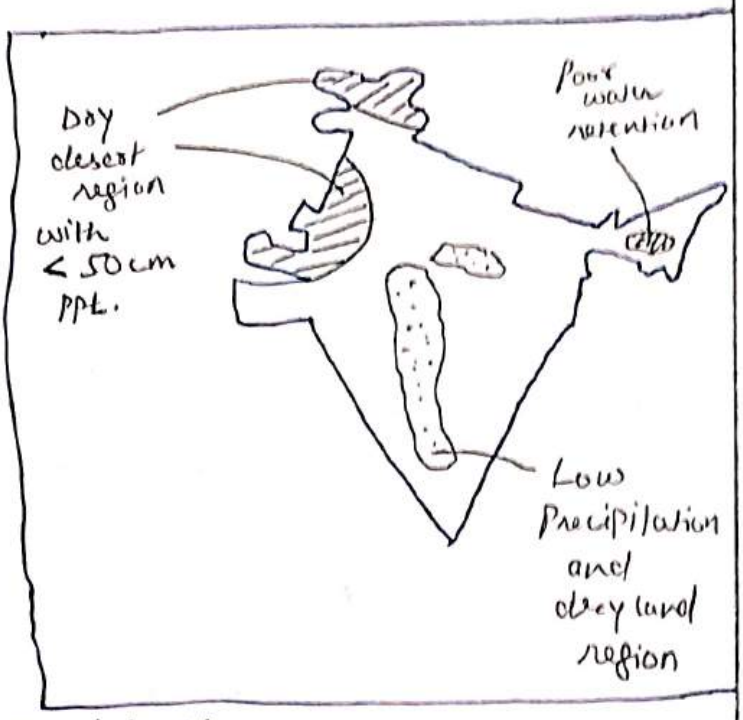
Factors Responsible

Economic

- Agrarian economy and need of irrigation (88% of the total water used is for agriculture)
- Method of Agriculture adopted
  - ↳ water intensive crops — Paddy, Rice — Sugarcane
  - ↳ extensive use of Groundwater
  - ↳ Poor irrigation technique — Flood irrigation — Rice transplantation.

Political

- Strong farming class Pressure group
- inadequate budgetary support for water resources management
- failure of policies like watershed mgt., command area devt. due to implementation issues.



Geographic (Different regions have different issues)

- Low precipitation regions → Desert areas of Rajasthan & Ladakh
  - → Arid & semi arid regions of Chambal ravines
  - → Leeward side of western Ghats
- Topographical issues, in hilly regions of Meghalaya, Himachal, etc runoff is too high.
- Urban areas → destruction of wetlands & mangroves
  - → very heavy usage and very little recycling.

These issues have had serious implications and need grave attention.

[Implications]

- Agrarian distress which can bring economy to a standstill
- Drinking water problems and other shortage for household purposes

  eg Shimla faces an annual water crisis prior to monsoon which has led to decrease in tourist arrivals

- Land degradation and desertification

  eg eastward march of Thar desert.

- Water conflicts between nations and between states

  eg Indo Pak fight over Indus Basin
  Teesta issue between India Bangladesh
  Cauvery issue b/w Karnataka & Tamil Nadu.

- Migration and related issues

  eg Bundelkhand region has witnessed huge outmigration due to water crisis.

Thus proper region based watershed policy approach is needed to tackle the crisis to fight water insecurity.

20. How are plateaus formed? Also, briefly discuss the features of the Deccan plateau and its economic significance. **(250 words) 15**

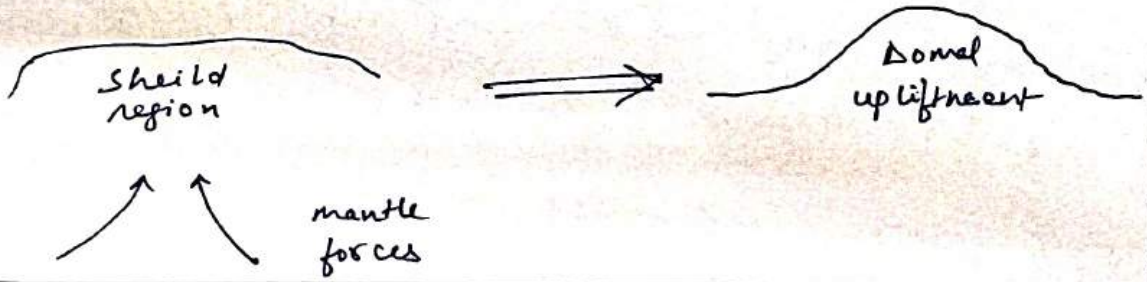
पठार का निर्माण कैसे होता है? साथ ही, दक्कन के पठार की विशेषताओं और इसके आर्थिक महत्व की संक्षेप में विवेचना कीजिए।

Plateaus are areas of higher relief as a result of upliftment, erosion, accumulation, etc. They are at higher sea level than plains but considerably lower than mountains.

Formation

They are formed as a result of multiple processes.

- Erosion of mountains and hills which reduce their relief eg Amarkantak Plateau
- Upliftment due to upwarping, certain endogenetic forces causes land to deform and take the shape of Plateau.



- Accumulation of Lava due to volcanic eruption or hotspot activity

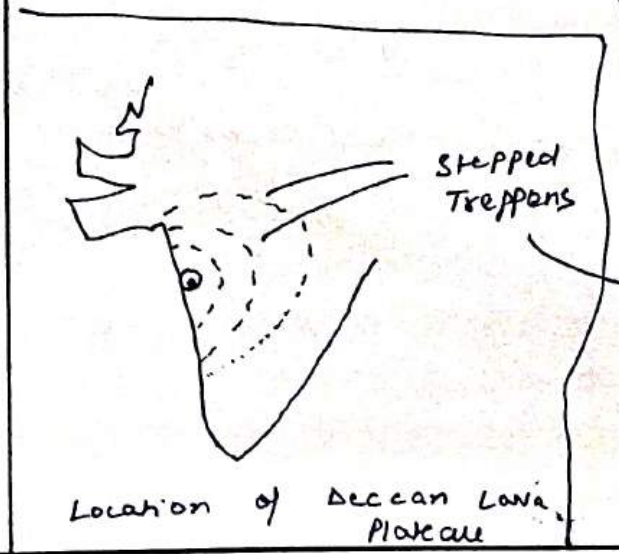
  eg columbia Snake Plateau, Deccan Lava Plateau, etc.

Deccan Lava Plateau

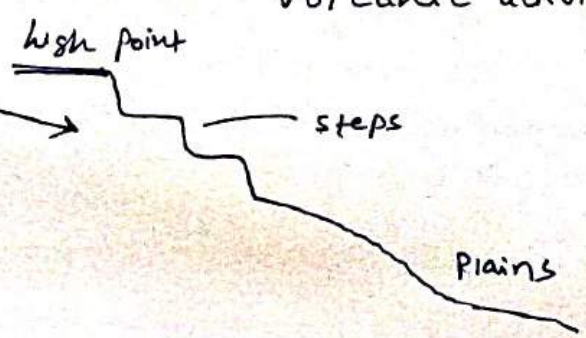
- Formation - formed as a result of volcanic activity from Reunion hotspot when Indian Plate was moving northwards over time lava accumulated and then solidified to become plateau.

- Features → Basaltic Rocks which are relatively softer giving rise to black soil which is good for cultivation.

  → Treppen structure due to phases of volcanic activity.



Location of Deccan Lava Plateau



- Economic significance

↳ It is one of the richest agrarian areas and black soil here is very fertile for agriculture.

eg · Cotton cultivation — backbone of textile industry

- other crops like groundnut, soyabean, wheat, barley, etc. responsible for food security.

↳ Even surface and thus transportation and movement is seamless with network of roads and railways.

- key industrial belt and trading region eg Malwa region, Pune region.

Much of Peninsular India is Plateau region and is key for habitation and economic activity.

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GENERAL STUDIES (TEST CODE : 1419)

Name of Candidate	Vinayak Chamadia		
Medium Eng./Hindi	ENGLISH	Registration Number	553357
Center	ONLINE	Date	03-12-20

INDEX TABLE

Q. No.	Maximum Marks	Marks Obtained
1	10	
2	10	
3	10	
4	10	
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6	10	
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8	10	
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18	15	
19	15	
20	15	

Total Marks Obtained:

Remarks:

INSTRUCTIONS

1. Do furnish the appropriate details in the answer sheet (viz. Name, Registration Number and Test Code).
   उत्तर पुस्तिका में सूचनाएं भरना आवश्यक है (नाम प्रश्न-पत्र कोड, विद्यार्थी क्रमांक आदि)।
2. There are **TWENTY** questions printed in **ENGLISH & HINDI**
   इसमें बीस प्रश्न हैं अंग्रेजी और हिन्दी में छपे हैं।
3. **All questions are compulsory.**
   सभी प्रश्न अनिवार्य हैं।
4. The number of marks carried by a question/part is indicated against it.
   प्रत्येक प्रश्न/भाग के अंक उसके सामने दिए गए हैं।
5. Answers must be written in the medium authorized in the Admission Certificate, which must be stated clearly on the cover of this Question-Cum-Answer (QCA) Booklet in the space provided. No marks will be given for answers written in medium other that the authorized one.
   प्रश्नों के उत्तर उसी माध्यम में लिखे जाने चाहिए जिसका उल्लेख आपके प्रवेश पत्र में किया गया है और उस माध्यम का स्पष्ट उल्लेख प्रश्न-सह-उत्तर (क्यूसीए) पुस्तिका के मुख्य पृष्ठ पर अंकित निर्दिष्ट स्थान पर किया जाना चाहिए। उल्लिखित माध्यम के अतिरिक्त अन्य किसी माध्यम में लिए गए उत्तर पर कोई अंक नहीं मिलेंगे।
6. Word limit in questions, if specified, should be adhered to.
   प्रश्नों में शब्द सीमा, जहाँ विनिर्दिष्ट है, का अनुसरण किया जाना चाहिए।
7. Any page or portion of the page left blank in the Question-Cum-Answer Booklet must be clearly struck off.
   उत्तर पुस्तिका में खाली छोड़ा हुआ पृष्ठ या उसके अंश को स्पष्ट रूप से काटा जाना चाहिए।

EVALUATION INDICATORS

1. Contextual Competence
2. Content Competence
3. Language Competence
4. Introduction Competence
5. Structure - Presentation Competence
6. Conclusion Competence

Overall Macro Comments / feedback / suggestions on Answer Booklet:

1.

2.

3.

4.

5.

6.

1. Highlighting the issues associated with power discoms in India, discuss whether privatizing discoms can help in this regard. (150 words) 10

भारत में विद्युत वितरण कंपनियों (डिस्कॉम्स) से जुड़े मुद्दों पर प्रकाश डालते हुए, चर्चा कीजिए कि क्या डिस्कॉम्स के निजीकरण से इस संबंध में सहायता मिल सकती है।

Power discoms have been facing a crisis of debt and inefficiency, and privatization of these discoms has been presented as a solution.

Issues with discoms

- Highly inefficient
  - high employee cost
  - unable to check AT&C losses
  - poor management
- Piling up of debt leading to high interest payments and debt unsustainability.
- Debtraging through UDAY scheme did not work out as objectives of efficiency were not met and debt piled up again.
- Inability to recover user charges and late credit of subsidies by state govt.
- As a result of these DISCOMS resort to load shedding, cuts, etc. inconvinencing the users.

Privatisation as a solution?

- Good experience with Discom Privatisation in Delhi which has led to efficiency in management, lower costs of operation, better service delivery due to corporatisation of Discoms.
- Better recovery of charges due to pro-active nature of pvt. players.
- considerable decrease in AT&C losses due to upgradation of infra, installation of meters and check of electricity theft.

But certain issues remain as privatisation of public services and utilities has not happened in India on a large scale and thus there are apprehensions about monopolistic practices, rise in bills, etc.

Thus public also needs to be taken into confidence before privatisation of

2. Harnessing Smart Agriculture can potentially be a game-changer for farm productivity in India. Discuss. **(150 words) 10**
स्मार्ट कृषि का दोहन संभवतः भारत में कृषि उत्पादकता के लिए निर्णायक सिद्ध हो सकता है। चर्चा कीजिए।

Farming in India suffers from low efficiency and low productivity due to conventional agri methods.

Agriculture in India
- → old technology of 1970's with little upgradation
- → issues with irrigation as about 45% of land is still rainfed

Smart Agriculture

It is a practice which is rooted in local ecological conditions and hence is not input intensive.

↳ Crop choice as per local climate and moisture availibility
eg Millets, groundnut, oilseeds, gram in dry land regions

↳ less use of costly fertilizers and pesticides and rather than using integrated pest management.

↳ using organic manure and traditional methods for cultivation which reduces costs.

↳ integrated farming — apiculture, agroforestry, livestock rearing, fisheries

All this enhances overall output in terms of value at lower cost and is thus more efficient.

It is also ecologically sustainable and doesnt leads to groundwater depletion and soil infertility.

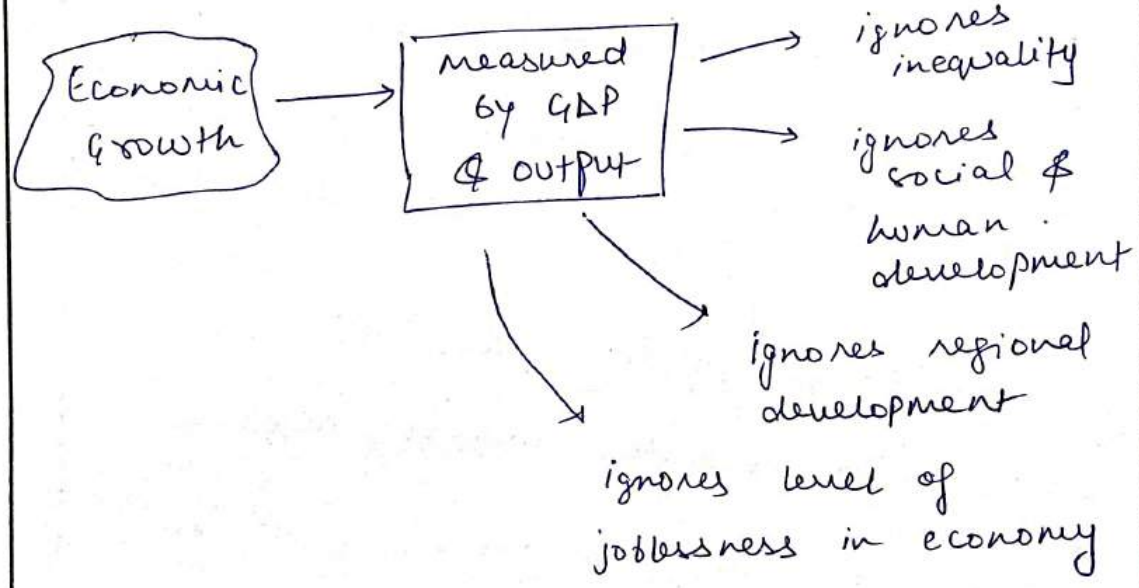
	Cost	Productivity	Profit
Intensive farming	↑↑	↑↑	↓
Smart agriculture	↓↓	↓	↑↑

Thus climate smart agriculture is the need of the hour for augmentation of farm incomes & ecological sustainability.

3. Rather than focusing solely on quantity, inclusive growth concerns itself with the quality of growth. Discuss. **(150 words) 10**

केवल परिमाण पर ध्यान केंद्रित करने के बजाय समावेशी विकास, संवृद्धि की गुणवत्ता के साथ भी अपना सरोकार रखता है। चर्चा कीजिए।

Inclusive growth refers to broad based growth which is equitable in nature and penetrates all regions, all social groups and thus reduces inequality and raises overall living standards.



Thus quantitative assessment in terms of GDP doesn't fulfills policy objectives of human development and socio economic justice.

And therefore multiple Plan documents and Niti Aayog's strategy focuses on inclusive growth and creation of opportunities for all.

Parameters (in terms of quality of growth)

- Nutritional security and related health indicators
- Educational attainment and skilling
- creation of jobs and making envt. for self employment and entrepreneurship

The qualitative growth thus ensures broad based growth across regions (Aspirational Dist. Program) and is sustainable and inclusive in nature.

4. In the backdrop of Atmanirbhar Bharat, discuss the core areas crucial in export promotion for India to become a manufacturing hub. (150 words) 10

आत्मनिर्भर भारत की पृष्ठभूमि में, भारत के लिए एक विनिर्माण केंद्र बनने हेतु निर्यात संवर्धन में महत्वपूर्ण मुख्य क्षेत्रों (कोर एरिया) की विवेचना कीजिए।

Aatmanirbhar Bharat as a policy refers to self reliance and its objectives include capacity development, achieving competitiveness and integrating into global value chain as a key partner and is thus an outward looking policy.

Core areas

- Leveraging specialization and uniqueness of India and hence importance to apparel industry, leather, handicrafts, pharmaceuticals, IT, etc.
- Integrating into value chains across diverse products and adding value in India. in sectors like electronics, chemicals, refinery products, etc.

- Agri processing and export and thus adding value to farm produce while diversifying Indian agriculture and augmenting incomes.
- Realizing export potential in modern products like defence equipments, telecom hardware, etc and carving out a niche market through aggressive pricing.

All this requires structural reforms, liberalization and govt. facilitation. If successfully done India can attain its target of 3% share in global exports while also providing productive employment at home.

5. Arsenic pollution is becoming a severe environmental issue in India. Enumerating its various sources, discuss the consequences and measures to tackle it. (150 words) 10

आर्सेनिक प्रदूषण भारत में एक गंभीर पर्यावरणीय मुद्दा बनता जा रहा है। इसके विभिन्न स्रोतों को सूचीबद्ध करते हुए, इसके परिणामों और इससे निपटने के उपायों पर चर्चा कीजिए।

Arsenic pollution of ground water sources in Ganga Brahmaputra basin is a serious issue with wide socio economic and health related effects.

Sources of Arsenic Pollution

- Natural presence in certain river basins primarily in Ganges basin.
- From fertilizers and farm outflows into rivers and groundwater.
- Industrial discharge, wastewater, dumping of e-waste, etc into landfills and leaching from there.

This was limited to certain blocks in Bihar and UP but now Arsenic pollution is taking a wider pan India form due to vehicular discharges & coal based power plants

Consequences

- Infestation of drinkingwater and thus effect on health particularly of children and also Arsenic poisoning as it is a mild toxin.
- Falling soil fertility due to irrigation from Arsenic polluted water
  ↳ biomagnification through food crops & vegetables as plants absorb this toxin.

Measures to tackle it

- Wastewater management, solidwaste management and groundwater recharge through recharge pits.
- Water treatment before use through cheap portable machines developed by IIT Madras, etc.
- Mapping of regions and localized solutions.

6. The Green Term Ahead Market (GTAM) can invigorate the renewable energy sector in India. Evaluate. **(150 words) 10**
ग्रीन टर्म अहेड मार्केट (GTAM) भारत में नवीकरणीय ऊर्जा क्षेत्रक को सुदृढ़ बना सकता है। मूल्यांकन कीजिए।

Green Term Ahead market is a futures trading market for renewable energy through online auction and trade at competitive prices across India.

Benifits

- Help Discoms better discover rates of various renewable energy sources
- Fulfillment of renewable purchase obligations at cheaper rates.
- Bringing competition in renewable energy market and also allowing it to compete with conventional power.
- Transparency in renewable sector and Predictability of supply of power at pre contracted rates.

- Integration of power across India and also leading to creation of wider power infrastructure like transmission networks, etc.
- Mobilizing capital for renewable energy and helping increase capacity and thus fulfilling targets under Paris deal.
- Institutional buyers may also procure and gain carbon credits like Indian Railways, etc.

Thus ETAM is a positive step towards cleaner & sustainable development.

7. In context of the increasing importance of technology for disaster management, throw some light on the application of GIS and Remote Sensing in disaster management with specific examples from India. **(150 words) 10**

आपदा प्रबंधन के लिए प्रौद्योगिकी के बढ़ते महत्व के संदर्भ में, भारत से विशिष्ट उदाहरणों को प्रस्तुत करते हुए आपदा प्रबंधन में जी.आई.एस. और सुदूर संवेदन के अनुप्रयोग पर कुछ प्रकाश डालिए।

Disaster management has been largely mitigated using technology and even Disaster Risk Reduction has been achieved through technological interventions.

GIS & Remote sensing

Geographic Information System and remote sensing are technologies for remote observation of areas, their changes and indexing them upon maps. This is done through combo of satellite imagery and GIS softwares.

Application in Disaster Management

- Tracking of atmospheric system and changes for prediction of cyclones and wave surges
- RISAT, etc have been used by IMD to predict and then issue warnings to

district administration, fishermen, naval crew, etc.

↳ many lives were saved during cyclone Fani due to evacuation and precautions due to early prediction.

- Tracking of forest fires and guiding firefighting operations eg Himachal forest fires extensively used GIS systems to predict spread and take corrective measures based on wind directions.
- Precipitation & Monsoon tracking and thus preparation for floods & droughts.

Thus GIS & remote sensing has been very helpful in early warning & management.

But also IMD will come to derive better forecast models and district administration needs to be proactive so as to mitigate disasters.

8. The CRISPR/Cas9 genetic scissors have revolutionized the genome editing technique with applications in various areas. Discuss. **(150 words) 10**
क्रिस्पर/कैस9 (CRISPR/Cas9) आनुवंशिक कैंची द्वारा विभिन्न क्षेत्रों में अनुप्रयोगों के साथ जीनोम संपादन तकनीक में क्रांतिकारी परिवर्तन का संचार किया गया है। चर्चा कीजिए।

CRISPR/Cas9 is a genome editing technology which is used to edit gene structure and pattern through cutting the strand at desired location and making suitable edits thereby altering the DNA of the being.

CRISPR are protein based short palindromic repeats which mimic the DNA strands and have potential in various fields.

Applications

- Recently in China a scientist used this to edit the undesired parts of DNA of embryo thereby essentially manufacturing a child.
  - → cure for genetic disorders
  - → breeding of stem cells and altering their structures as per needs.

- use in agriculture to ensure food security by creating food crops that are resistant to pests, etc.
- breeding of specialized bacteria and animals for variety of purposes.

But a lot of ethical concerns are related to this techniques as its role in cloning, manufactured babies, etc will be contentious.

Recently, it was applied in isolating COVID strain and also in development of vaccine against COVID.

Thus a balanced approach with certain safeguards is needed to keep this technology safe.

9. Bring out the role played by Financial Action Task Force in tackling the menace of money laundering. (150 words) 10
धन-शोधन के खतरे से निपटने में वित्तीय कार्रवाई कार्य बल द्वारा निभाई गई भूमिका को स्पष्ट कीजिए।

FATF is a global watchdog against money laundering, terror financing and other financial crimes.

Role in tackling money laundering

- Setting global agenda & policy wrt money laundering & terror financing.
  - ↳ devising definitions
  - ↳ putting in safeguards and devising SOP's in place for a safe and secure global financial system.
- Arbitration and sanctioning authority

It acts as a bulwark against erring nations who are complicit in terror financing., through blacklisting & grey listing.

eg North Korea - Blacklisted.
Pakistan - Grey listed

- Global coordination against money laundering & streamlining of laws and regulations across countries & jurisdictions.

All this has led to considerable decline in terror financing & money laundering thereby hampering terror networks & organized crime networks.

But there are concerns of politicization of body by certain countries and formation of groups to further their own agenda and thereby impacting fight against terror.

eg Malaysia & Turkey blocking Pakistan's blacklisting despite its failures.

Thus there is need for reform of FATF to depict current realities & tide over petty politics.

10. Discuss the recent reforms that have been undertaken in the National Security Architecture of India. (150 words) 10
भारत की राष्ट्रीय सुरक्षा संरचना में हाल ही में किए गए सुधारों की विवेचना कीजिए।

National Security Architecture of India is very broad based which includes Armed forces, National security Advisor, Strategic forces Command & various intelligence agencies like RAW, IB, etc.

It is responsible for security & integrity of country from all external & internal threats & thus with changing geodynamics and security concerns continuous reforms is necessary.

Recent Reforms

- Upgradation of NSA to cabinet rank & thus making security more broad based
- Reforms in Armed forces like creation

of CDS for single point advice to CCS [cabinet committee on security].

- Mandating NSA to prepare national security strategy & thus initiating a broad based survey of threats & possible solutions.
- Formation of NATGRID & collation of all intelligence under NSA for proper coordination & response.

Reforms in NSA is an dynamic process as per evolving needs & thus must carry on.

11. Bring out the key hurdles that are being faced in accomplishing land reforms in India. Also, discuss the advantages which can be reaped by accomplishing them in contemporary times. (250 words) 15
भारत में भूमि सुधारों को पूरा करने में सामना की जा रही प्रमुख बाधाओं को स्पष्ट कीजिए। साथ ही, समकालीन समय में इन्हें पूरा करने से होने वाले लाभों की भी विवेचना कीजिए।

India is primarily an agrarian economy with more ~~than~~ than 40% people directly dependent on it; but agriculture has not been remunerative and also there is large inequality both within and outside agrarian sector.

Importance of Land Reforms

Since before independence land reform has been a key political and socio economic agenda. primarily to ensure,

- fair landholding — equitable in nature
- higher rural incomes driving broader economy.

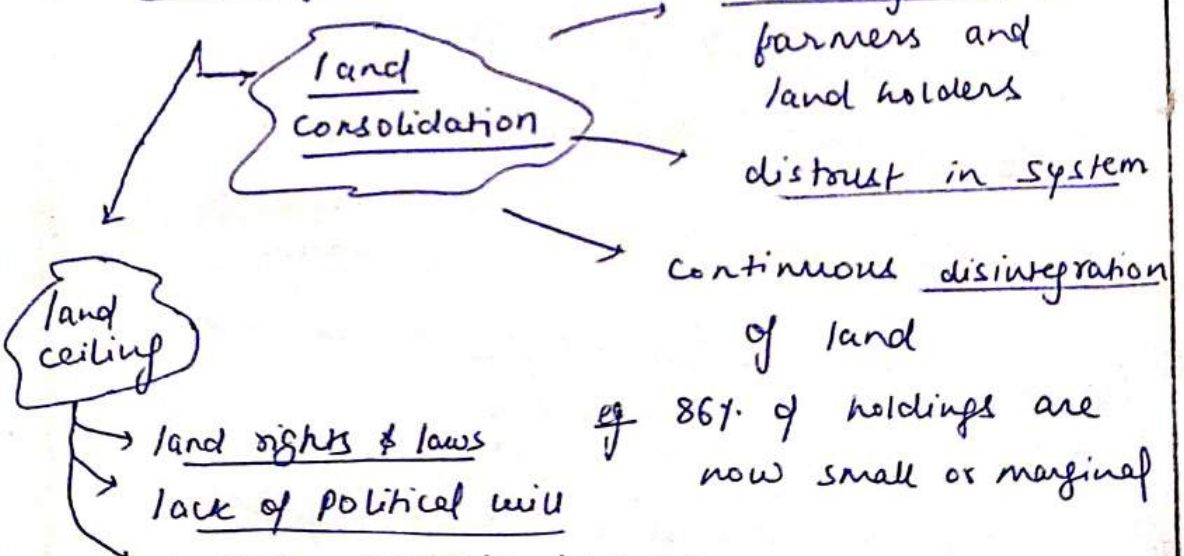
Thus post independence land reforms in form of abolition of Zamindari, land

Ceiling enforcement, land distribution and land consolidation was taken up but to a great extent it has not succeeded in achieving key objectives.

Hurdles in land reforms

1) Improper record keeping and unclear land titles thus making a proper survey difficult.

2) Difficulty in different aspects of land reforms,



3) large scale corruption and rent seeking.

4) Lack of innovation, today we need neo land reforms as per the realities of current economic structure.

- ↳ clear & solid land titles
- ↳ easy, fast and safe land registration and transfers
- ↳ modern land leasing and contract farming laws which do not threaten ownership.

Advantages

- ↳ increase in agri productivity and streamlining of value chain
- ↳ land security and thus lesser conflicts and lesser inequalities
- ↳ Ease of doing business and higher investment leading to multiplier effects

Land reform is one thing which is necessary to raise animal spirit in economy leading to entrepreneurship & growth.

12. India needs to accord more significance to nutritional security than food security. Comment. In this context, suggest a framework that should be adopted by the government to achieve nutritional self-reliance.
(250 words) 15

भारत को खाद्य सुरक्षा की तुलना में पोषण सुरक्षा को अधिक महत्व देने की आवश्यकता है। टिप्पणी कीजिए। इस संदर्भ में, वह रूपरेखा भी बताइए जिसे सरकार द्वारा पोषण संबंधी आत्मनिर्भरता प्राप्त करने के लिए अपनाया जाना चाहिए।

Human capital development is primarily based upon good education and health which is rooted in nutritional security.

Food security → towards → Nutritional security

India has far left behind 1980's when there were food crisis and through green revolution and PDS has ensured food security for all Indians.

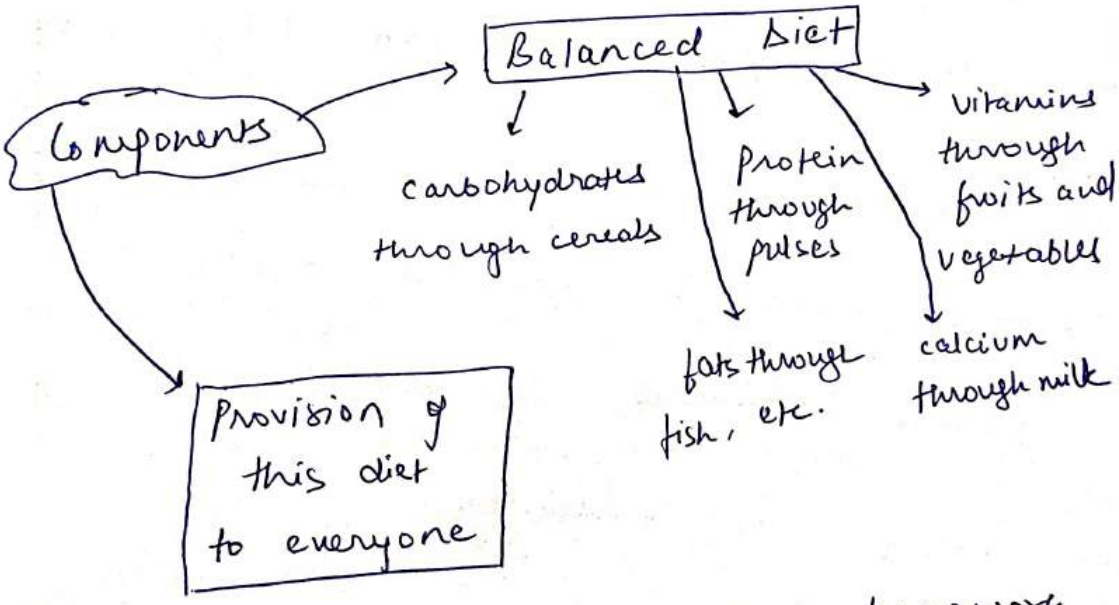
Persisting issues → Lopsided dietary pattern which is highly dependent of one key cereal in one geographic region.
↳ Rice diet or wheat diet

Problem
↳ unbalanced diet
↳ malnutrition and poor health indicators
↳ modern problems of diabetes and indigestion

↳ Issues with wheat, Rice based diet has led to these problems due to their gluten content and high glycemic index.

Need of nutritional security

For healthy and productive life proper nutritional security has to be achieved across life cycle of an individual.



↳ Need to create a framework of nutritional security while also ensuring nutritional self reliance.

Frame work

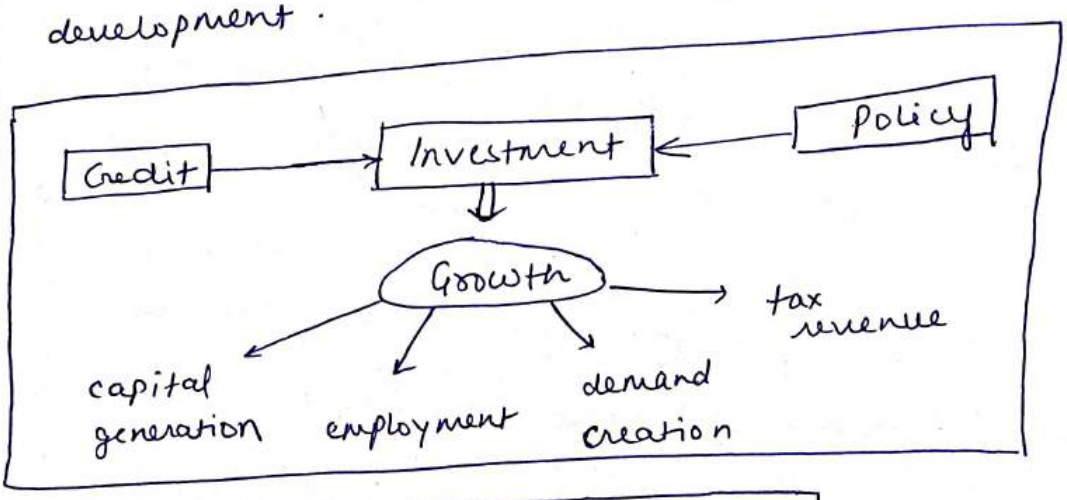
- For mothers and newborns → changes to ICDS and Anganwadi to include a changed and wider nutritional diet.
- Provision of milk in mid day meals and otherwise of ksheera Bhagya scheme of karnataka.
- Diversification of PDS and cropping pattern away from staple cereals where there is a problem of plenty apart from ecological issues

Thus chartering a National Nutrition Programme based on idea of convergence to achieve nutional security and thus better human development.

13. Private investments are key for India to move into a high growth trajectory. Discuss. Also highlight the steps taken by the government in recent times to address the fall in private investments. **(250 words) 15**

निजी निवेश भारत के लिए उच्च संवृद्धि पथ पर आगे बढ़ने हेतु महत्वपूर्ण हैं। चर्चा कीजिए। साथ ही, निजी निवेश में गिरावट को दूर करने के लिए हाल के दिनों में सरकार द्वारा उठाए गए कदमों को भी रेखांकित कीजिए।

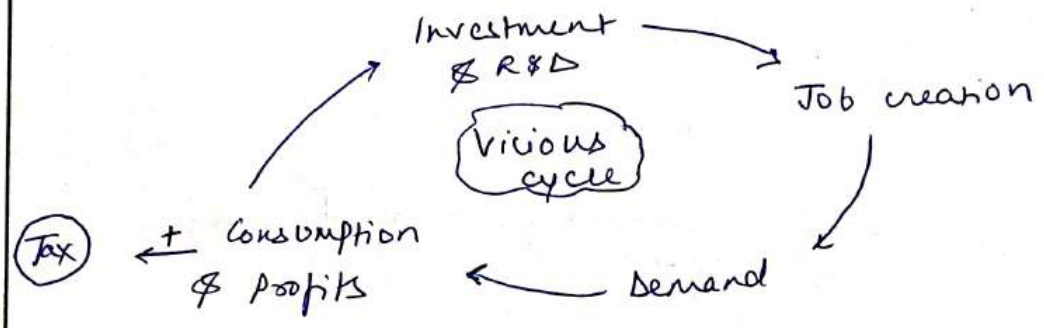
Private Investment is one of the key driver of growth in any liberalized economy which creates a multiplier effect and leads to broad based development.



Importance of Private Investment

- With economic expansion the role of government has drastically changed,
  - ↳ capital investment in infrastructure
  - ↳ less share of capital availibility
  - ↳ Role as regulator and facilitator

- Thus for other purposes private invstt. becomes key,
  - ↳ creation of manufacturing capacity and opening of new firms leading to job creation, innovation



- ↳ Models across the world which have been successful in terms of socio-economic development are based on capital investment by private sector.
  - East Asian Tigers and China
    - ↳ export based economies
    - ↳ global supply chain integration
  - Industrialization of West was also propelled by private entrepreneurship.

- Govt. spending is also dependent on tax revenues generated from economic activity. Leading to welfare measures and capacity creation.

context → private capital invstt. as a share of GDP has fallen from a high of 35% to below 30%.

Govt measures

- Structural reforms and policy changes
  - ① → labour law liberalization
  - ② → Liberalization of FDI policy and opening up of newer sectors for private investment of commercial coal mining, etc.
  - ③ → Ease of doing Business reforms by easing bureaucratic hurdles, investment facilitation. etc., along with tax rationalization.
  - ④ → creation of requisite infrastructure and logistics network. eg Bharatmala, Sagarmala
  - ⑤ → Newer schemes like PLI, etc to incentivize investment.

It depends on the investment the private sector is able to mobilize to drive growth.

14. India's geographical diversity and varied levels of development across regions necessitate a targeted region specific action plan to ensure a minimum acceptable level of prosperity. Elaborate. (250 words) 15

भारत की भौगोलिक विविधता और विभिन्न क्षेत्रों में विकास के भिन्न-भिन्न स्तर समृद्धि के एक न्यूनतम स्वीकार्य स्तर को सुनिश्चित करने के लिए एक लक्षित क्षेत्र विशिष्ट कार्य योजना को आवश्यक बनाते हैं। सविस्तार वर्णन कीजिए।

India has wide Physiographic and climatic diversity which has manifested into disbalanced regional economic development.

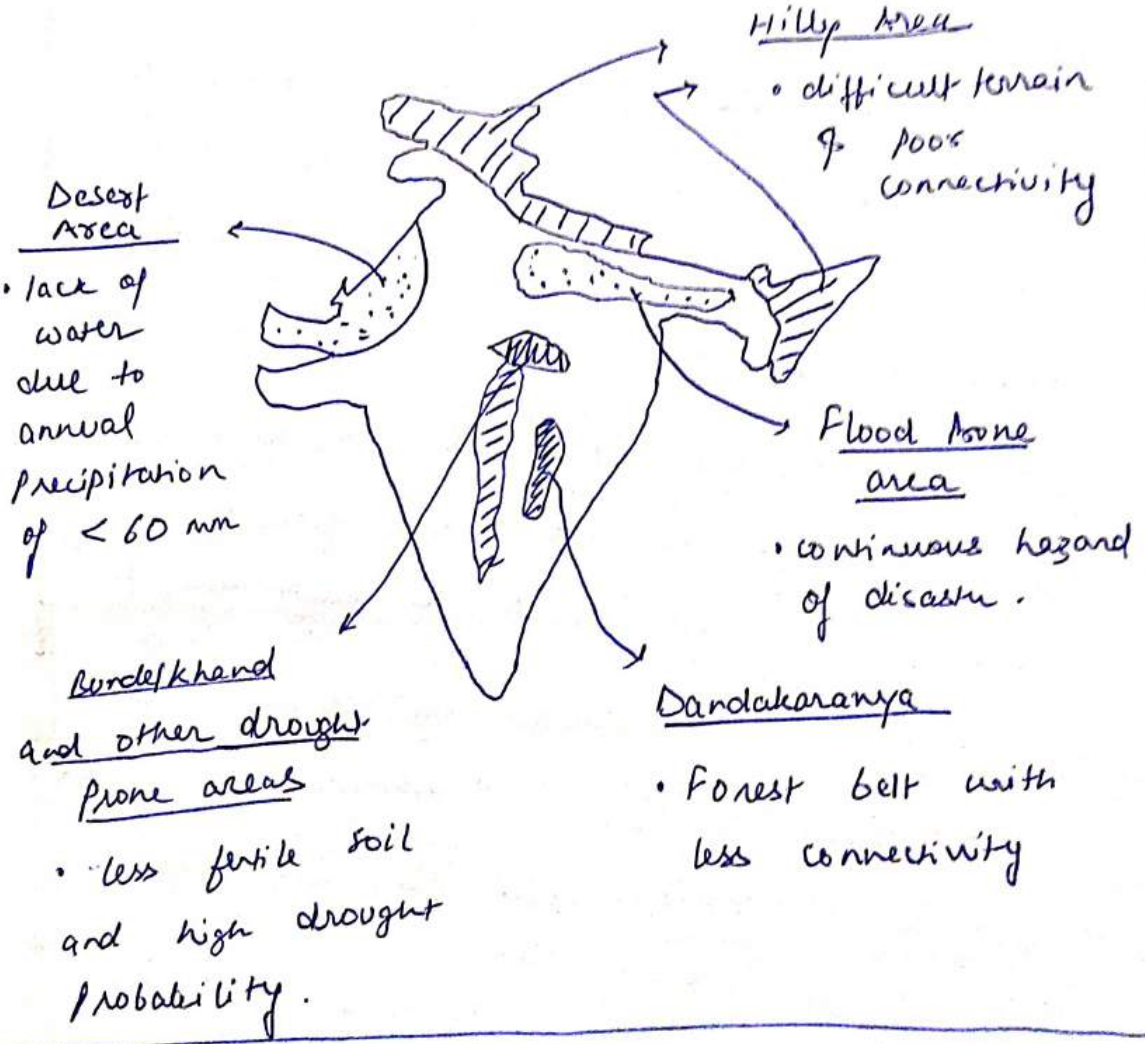


Fig: India's geographical diversity and its manifestation on regional development

Since each of these underdeveloped regions have had their unique set of problems and hence an area based approach for Integrated rural development was taken.

Region	Programme
• Hill Areas	Hill area devt program
• Drought regions	Drought Prone area devt. prog.
• Desert region	Desert area devt. prog.
• Tribal regions	Tribal Sub Plans, etc.

Focus of these Programs

- Solve the basic problem which has kept the area backward
  - Creation of irrigation potential in drought prone areas and also Providing livelihood through schemes.
- Focus on overall socio economic devt. through preparation of special plans and their bureaucratic implementation.

Issues with area approach
- → Top-down model with limited local participation
- → Micro level diversities ignored
- → Weak implementation mechanism & bureaucratic apathy and corruption

Neo-Approach envisaged

- use of multi level planning and preparation of plans by locals at Panchayat & district levels cf 73rd & 74th Amdt of constitution.
- Aspirational Districts Program
  - convergence of efforts and schemes
  - coordination of bureaucracy
  - outcome based objective approach

It is through local participation and dedicated greivance redressal that this issue of regional disparity can be resolved, as India cannot attain $5 Trillion goal without participation from 40% of its area.

15. Empowering the farmers by ensuring barrier-free trade in the agriculture produce is critical in doubling their incomes. Enumerating the existing bottlenecks, discuss how the recent legislations can help in overcoming them. (250 words) 15

कृषि उपज का निर्बाध व्यापार सुनिश्चित करके किसानों का सशक्तीकरण करना उनकी आय दोगुनी करने में महत्वपूर्ण है। वर्तमान बाधाओं का उल्लेख करते हुए, चर्चा कीजिए कि इन पर नियंत्रण पाने में हालिया अधिनियम कैसे सहायता कर सकते हैं।

Agriculture in India suffers from lower productivity and non remunerative prices which precipitates into poverty and debt traps for millions of farmers.

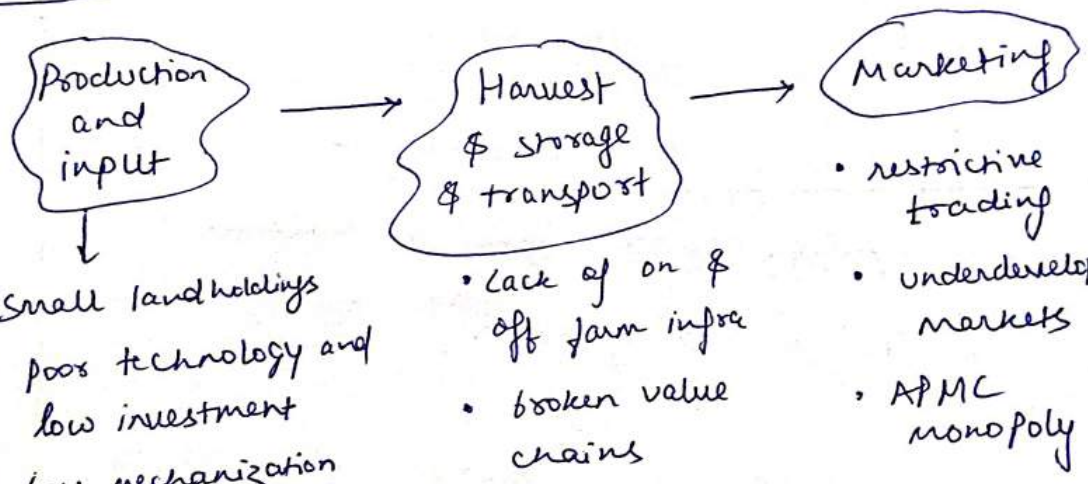


Fig: Issues across life cycle of agriculture

The three recent legislations are a reform effort to unshackle the agri business and improve agri incomes and allow devt. of food processing industries.

① Reform of APMC's and removal of monopolistic practices

- allowing private trade in agri crops outside of mandi system at zero tax

Benifits

→ Investment in logistics like storage infra. (cold storages, etc.), transport systems (modern truck fleets, etc.) thus development of value chain.

→ More choices to farmers to sell at desired prices and free themselves from cartels of mandi system.

② Contract Farming reform

Benifits

→ investment by pvt. Players in agri technology leading to higher Productivity

→ freedom from cobweb cycle of market prices by guaranteeing prices and thereby bringing Predictability.

③ Reform in Essential Commodities Act and removal of stock limits

Benifits

→ investment in food processing industry thereby adding value to farmers produce and increasing their incomes.

→ diversification of cropping away from wheat, rice mono culture.

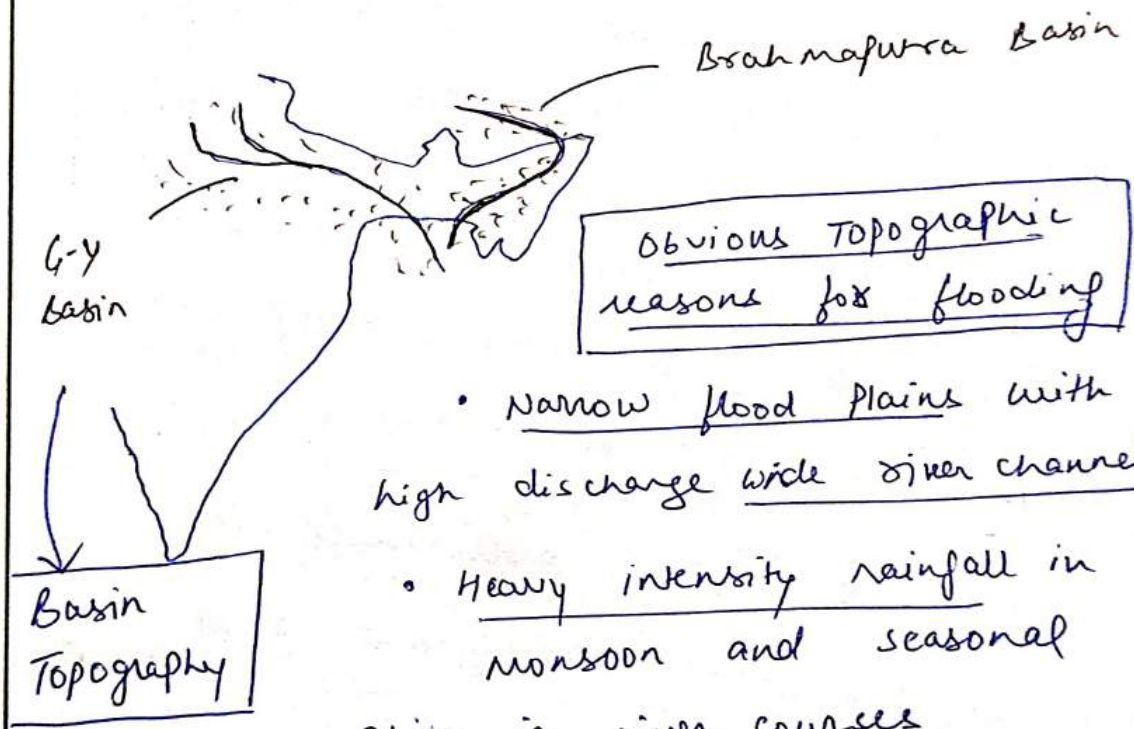
But sufficient safeguards have to be maintained to avoid newer monopolization and harassment of farmers.

Also govt. will need to invest in logistics development and creak an environment of investment through continuous reform process.

16. The reasons for recurring floods in the regions of Eastern India such as Bihar and Assam go far beyond their topography. Discuss. Also, suggest measures to control this menace. (250 words) 15

बिहार और असम जैसे पूर्वी भारत के क्षेत्रों में बार-बार आने वाली बाढ़ के लिए केवल उनकी स्थलाकृति उत्तरदायी नहीं हैं। चर्चा कीजिए। साथ ही, इस खतरे को नियंत्रण में लाने के उपायों का भी सुझाव दीजिए।

Much of Eastern India in Ganga-Brahmaputra basin is ravaged by flood almost on an annual basis.



Obvious Topographic reasons for flooding

- Narrow flood plains with high discharge wide river channels
- Heavy intensity rainfall in monsoon and seasonal shift in river courses
- Dendritic drainage with multiple tributaries and high sediment load, flooding in terai and khaddar plains.

Other important factors

- Deforestation for land reclamation and thus higher runoff with greater sediment load.
- Occupancy of flood plains and active settlement and agriculture
- Destruction of natural coping systems such as wetlands and small streams.
- Construction of huge dams and their improper operation
- River bed sand mining.

All these factors lead to disaster hazard, loss of life and developmental gains, and thus measures need to be taken so as to mitigate flood hazard and reduce disaster risk.

Measures

- Proper flood plain zoning and vulnerability mapping and consequent planning of settlements in the region.

- Afforestation and wetland restoration to increase water retention.
- Structural measures
  - embankment and levee construction and their annual maintainence
  - desiltation of dams
  - creation of traditional water structures like check dams, etc.
  - basin linking for better flow management.
- Proper implementation and coordination between states and authorities, and for this creation of oversight mechanism.

Mitigating floods in Eastern India is key to its development as much of dev. gains and infrastructure is lost to floods every year.

17. How can 5G technology potentially bring about a digital revolution in India? Identify the challenges in adoption of 5G technology in India. **(250 words) 15**

5G प्रौद्योगिकी संभावित रूप से भारत में एक डिजिटल क्रांति कैसे ला सकती है? भारत में 5जी प्रौद्योगिकी को अपनाने में आने वाली चुनौतियों की पहचान कीजिए।

5G technology is a cutting edge mobile and fibre internet and communication technology which is an improvement over current LTE.

5G technology
- Higher speeds of upto 10 GBPS.
- lower latency and lag
- More connections per unit area thus avoiding call drops and network congestion

Potential role in digital revolution

Today's world stands on foundation of technological innovation and faster communication and 5G will further revolutionize it,

- Tele-Medicine - seamless connectivity and speed to allow greater reach of tele medicine.
- e-Education - online education is booming and with smart education and video content as key deliverables importance of speed and connectivity is key.
- Artificial Intelligence and Industry 4.0 with need for greater data analysis from wide sources and its discemmination 5G is key, along with IOT revolution.
- e-governance and people to govt. connect Today much of govt. services are online and have become transparent and with 5G this will extend to wider regions and will be seamless.
- Newer & wider business opportunities in OTT streaming & other fintech.

- Cloud computing & Edge computing need faster speeds which 5G can deliver.

Challenges in adoption

- Huge investment of capital required
- Dependancy of China for much of hard ware and thus threat of surveillance, data mining & wider cyber and national security.
- History of high spectrum resource prices and cronyism has led to monopolization and fears of overpricing.

Thus govt. needs to come out with its 5G strategy and also needs to put in place a policy framework to tide over such challenges.

18. Besides computing, quantum technology has potential applications in various areas. Discuss. What are the challenges which lie ahead for effective utilization of quantum technology? (250 words) 15

संगणना के अतिरिक्त, क्वांटम प्रौद्योगिकी के विभिन्न क्षेत्रों में संभाव्य अनुप्रयोग हैं। चर्चा कीजिए। क्वांटम प्रौद्योगिकी के प्रभावी उपयोग के समक्ष आने वाली चुनौतियां क्या हैं?

Quantum technology is an emerging new age technology which has potential to revolutionize communication, computing, industrial process and security architecture.

Quantum physics is based on the dual nature of matter viz. wave form and particle form.

Potential Applications

- Communication - Quantum property is an universal characteristic and hence quantum mechanics can be used for Internet of Things where machines, plants, etc. will be able to communicate amongst each other and with systems

thus enabling their automation and remote handling.

↳ Reduce cost and increase productivity of agriculture and industry.

- Security Infrastructure - Quantum systems can be used for geofencing, surveillance, network isolation and securitization, etc.
- Space applications - satellites will largely migrate to quantum systems thus enhancing their security and ensuring better faster & cheaper communication.
- Medical Technology - Quantum energy can be used for diagnostics and also for other therapies.

But there are very many challenges that remain and also their are concerns about its potential misuse and weaponization.

Challenges

- Still an emerging technology and hence lack of investment interest due to long gestation period for commercialization
- lack of skilled individuals in quantum mechanics locally due to absence of R&D and courses.
- lack of R&D infrastructure like labs, research facilities and equipments largely due to very high cost.

Govt. has committed to National Mission on Quantum Technology with dedicated budget of over ₹8000 cr over 5 yrs and much will depend on its implementation as public institutions will have to take in lead.

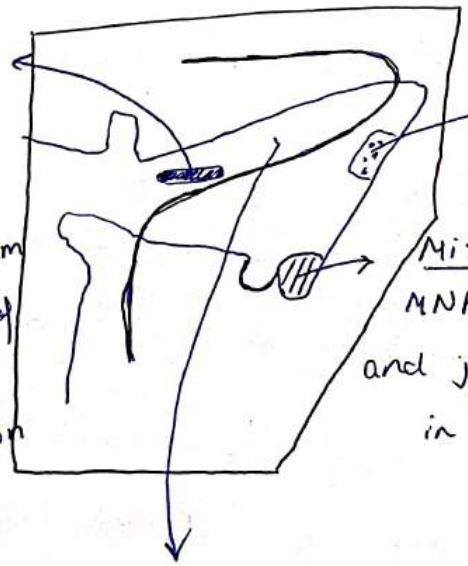
Don't write anything in this margin इस भाग में कुछ न लिखें

19. While most insurgent groups in North-East India have given up violence and are engaged in peace talks with the government, a number of issues could create hurdles in the future. Discuss. **(250 words) 15**

जहाँ पूर्वोत्तर भारत में अधिकांश विद्रोही गुटों ने हिंसा छोड़ दी है और सरकार के साथ शांति वार्ता में संलग्न हैं, वहीं अनेक ऐसे मुद्दे हैं जो भविष्य में बाधाएं उत्पन्न कर सकते हैं। चर्चा कीजिए।

North East India has been infested with insurgency since long but with national integration insurgency is now limited to certain pockets only.

Mainstreaming of insurgent Groups over decades



Bodo demands
concluded talks in 2020 & joined mainstream post creation of Bodoland Territorial Region

Naga issue
Most groups integrated, talks on

Mizoram
MNF gave up violence and joined mainstream in 1980's

Assam based groups like ULFA, etc
to a great extent integrated but splinter groups exist

Reasons for insurgency

- proud identity groups with isolation in history
- multiple ethnic groups with constant tussle amongst them
- imposition of language, culture and administration in early post independence stage.
- alienation of land due to entry of other groups
- terrain and geographic conditions make insurgency easier and role of non state actors.

Mainstreaming over the years

- Constitutional protections in form of special provisions eg Schedule 5, 6; Article 371 A, etc
- Local legislations and restrictions eg Local Area Permits, etc.
- Delivery of governance, development protection and mainstreaming.
- Negotiations eg Shillong Pact, Assam Accord, etc.

Currently also NSCN (IM), NDFB, etc remain engaged in negotiations but there are issues that can threaten this peace process.

Issues

↳ Multiple factions and splinter groups with different ideologies and interests make negotiations difficult.
eg signing of agreement with NNC created NSCN (IM) & NSCN (K)

↳ Role of foreign actors and organized crime networks which have an interest in keeping region unpeaceful

↳ Certain demands are in conflict with other states in region which create problems. eg Nagalim proposition and opposition by Manipur, Assam & AP.

Thus peace process hangs by a thread in such conditions and govt. will have to negotiate carefully while taking everyone into confidence.

20. Identifying the key vulnerabilities in India's cyberspace, discuss the framework which should be adopted in the envisaged new cyber security policy in India. **(250 words) 15**

भारत के साइबर जगत में प्रमुख सुभेद्यताओं की पहचान करते हुए, उस रूपरेखा पर चर्चा कीजिए, जिसे भारत में परिकल्पित नई साइबर सुरक्षा नीति में अपनाया जाना चाहिए।

Cyber security is key in the age of digital economy when financial systems, energy infrastructure, etc. is dependent upon cyber networks.

Key vulnerabilities in India's cyberspace

- According to Microsoft's cyber research India was the most attacked and also the most vulnerable country to cyber system attacks.

  eg multiple ransomware attacks, hacking of govt. sites by cyberterrorists, etc.

- Financial system and banking is dependent on real time networking and any successful attack on it can paralyze the banking sector.

- Threat to cyber physical systems like power plants, energy transmission networks, ports, security architecture, etc.

  eg recently Kudankulam Nuclear Plant was attacked and a bug was found in its system

- Use of cyber systems in organized crime for financial transactions & sales.
- Use by terrorist networks
  - ↳ Radicalization & recruitment
  - ↳ Funding and hawala network.
- Uncertainity introduced by crypto currency.
- Weak cyber policy and infrastructure to deal with any attack
- Absence of Data Protection Law risking privacy of citizens and raising threat of data theft and mining.

Thus there is a need to adopt a proper framework so as to wade of this challenge.

Framework

- Proper legislation for cybersecurity and data protection along with update to current cyber policy.
- strengthening of institutions and giving them mandate and clear outlining of their roles.

  - NTRO & NATGRID → national security & cyber security interface
  - NCIIPC & CERT-IN → protection and strengthening of cyber physical systems.

- creation of human capital in cyber space and adequate funding
- Communication & awareness generation amongst public and users

For growth and innovation in digital world, cyber security is imperative to usher and achieve goal of Aatmanirbhar Bharat.